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Dkt. 05168

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of:

Group Art Unit: 1746

PHILIP VON SCHROETER et al

Serial No.: 10/564,161

Filed: January 11, 2006 .

For: METHOD FOR REPRESENTING A DENTAL OBJECT  
AND FOR PRODUCING DENTURES

**SUBMISSION OF INTERNATIONAL PRELIMINARY  
REPORT ON PATENTABILITY**

Honorable Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

Sir:

Applicants submit herewith an English translation of  
the International Preliminary Report on Patentability in the  
corresponding PCT application.

Respectfully submitted,

Ira J. Schultz  
Registration No. 28666

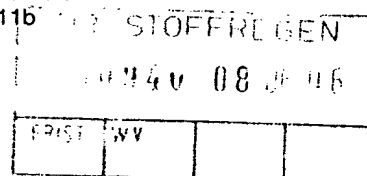
From the INTERNATIONAL BUREAU

**PCT**

NOTIFICATION OF TRANSMITTAL  
OF COPIES OF TRANSLATION  
OF THE INTERNATIONAL PRELIMINARY REPORT  
ON PATENTABILITY  
(CHAPTER I OR CHAPTER II  
OF THE PATENT COOPERATION TREATY)  
(PCT Rules 44bis.3(c) and 72.2)

To:

STOFFREGEN, Hans-Herbert  
Friedrich-Ebert-Anlage 11b  
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ALLEMAGNE



Date of mailing (day/month/year) 01 June 2006 (01.06.2006)	
Applicant's or agent's file reference 44 365	<b>IMPORTANT NOTIFICATION</b>
International application No. PCT/EP2004/007406	International filing date (day/month/year) 07 July 2004 (07.07.2004)
Applicant DEGUDENT GMBH et al	

## 1. Transmittal of the translation to the applicant.

- ☐ The International Bureau transmits herewith a copy of the English translation of the international preliminary report on patentability (Chapter I).
- ☒ The International Bureau transmits herewith a copy of the English translation of the international preliminary report on patentability (Chapter II).

## 2. Transmittal of the copy of the translation to the designated or elected Offices.

The International Bureau notifies the applicant that copies of that translation have been transmitted to the following designated or elected Offices requiring such translation:

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The following designated or elected Offices, having waived the requirement for such a transmittal at this time, will receive copies of that translation from the International Bureau only upon their request:

AE, AG, AL, AM, AP, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EA, EC, EE, EG, EP, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OA, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

## 3. Reminder regarding translation into (one of) the official language(s) of the elected Office(s).

The applicant is reminded that, where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary report on patentability (Chapter II).

It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned within the applicable time limit (Rule 74.1). See Volume II of the PCT Applicant's Guide for further details.

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland  Facsimile No.+41 22 740 14 35	Authorized officer  Ellen Moyse  Facsimile No.+41 22 338 89 75
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**Translation**

**PATENT COOPERATION TREATY**

**PCT**

**INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY**

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference <b>44 365</b>	FOR FURTHER ACTION See Form PCT/IPEA/416	
International application No. <b>PCT/EP2004/007406</b>	International filing date (day/month/year) <b>07.07.2004</b>	Priority date (day/month/year) <b>14.07.2003</b>
International Patent Classification (IPC) or national classification and IPC <b>A61C13/00, A61C9/00, G06F3/033</b>		
Applicant <b>DEGUDENT GMBH</b>		

<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>6</u> sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input checked="" type="checkbox"/> (sent to the applicant and to the International Bureau) a total of <u>3</u> sheets, as follows:</p> <p><input checked="" type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>	
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the report</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>	

Date of submission of the demand	Date of completion of this report
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/EP2004/007406

Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language \_\_\_\_\_ which is the language of a translation furnished for the purposes of:
- ☐ international search (Rule 12.3 and 23.1(b))
- ☐ publication of the international application (Rule 12.4)
- ☐ international preliminary examination (Rule 55.2 and/or 55.3)
2. With regard to the elements of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:
- ☐ the international application as originally filed/furnished
- ☒ the description:
- pages 1, 3-16 as originally filed/furnished
- pages\* 2, 2a received by this Authority on 12.05.2005 with fax
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☒ the claims:
- nos. 1-18 as originally filed/furnished
- nos.\* \_\_\_\_\_ as amended (together with any statement) under Article 19
- nos.\* 19-23 received by this Authority on 12.05.2005 with fax
- nos.\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☒ the drawings:
- sheets 1/4-4/4 - figures 1-10 as originally filed/furnished
- sheets\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- sheets\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.
3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, nos. \_\_\_\_\_
- ☐ the drawings, sheets/figs \_\_\_\_\_
- ☐ the sequence listing (specify): \_\_\_\_\_
- ☐ any table(s) related to sequence listing (specify): \_\_\_\_\_
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, nos. \_\_\_\_\_
- ☐ the drawings, sheets/figs \_\_\_\_\_
- ☐ the sequence listing (specify): \_\_\_\_\_
- ☐ any table(s) related to sequence listing (specify): \_\_\_\_\_

\* If item 4 applies, some or all of those sheets may be marked "superseded."

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/EP2004/007406

Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement		
1. Statement			
Novelty (N)	Claims	1-23	YES
	Claims		NO
Inventive step (IS)	Claims		YES
	Claims	1-23	NO
Industrial applicability (IA)	Claims	1-23	YES
	Claims		NO
2. Citations and explanations (Rule 70.7)			
1 INDEPENDENT CLAIM 1			
1.1 The present application does not meet the requirements of PCT Article 33(1) because the subject matter of claim 1 does not involve an inventive step within the meaning of PCT Article 33(3).			
D1 discloses: process for graphic representation of a digitized dental object on a monitor based on a rectangular coordinate system with x-, y- and z-axes, wherein the z-axis and the y-axis and the intersection extend in the plane of representation of the monitor and the x-axis extends perpendicularly to the plane of representation and the dental object is rotated about two axes perpendicular to each other and moved along the x-axis for the purpose of zooming in on the object.			
Although the object can be moved with six degrees of freedom (albeit not readily), an operator can always ensure that the object is moved with only			

Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
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one degree of freedom or two degrees of freedom:  
at least, with fewer than five degrees of freedom.

Claim 1 contains no technical features whereby the operator can readily move the object along the t-axis. Moreover, zooming along the x-axis, wherein the x-axis extends along a plane spanned by the x-axis and the y-axis and passes through the origin of the coordinate system, is possible

Therefore, the subject matter of the characterizing part of claim 1 consists only in an operation by a person. Consequently, the subject matter of claim 1 does not involve an inventive step.

2 DEPENDENT CLAIMS 2-23

2.1 Claims 2-18 do not appear to contain any features which, in combination with the features of any claim to which they refer back, meet the PCT requirements for inventive step. The reasons are: these features are known from D1, D2 and D3 or merely represent minor modifications.

2.2 D3 discloses:

process for producing a dental prosthesis based on digitized data for a jaw area which is to be provided with the dental prosthesis, calculation of the dental prosthesis on the basis of the digitized data and graphic representation of the

Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
	<p>dental prosthesis on a monitor, evaluation of the graphically represented dental prosthesis by moving the dental prosthesis on the monitor and, if necessary, modifying the graphically represented dental prosthesis and then producing the dental prosthesis on the basis of data corresponding to the graphically represented dental prosthesis (see claim 16).</p> <p>Graphic representation on a monitor according to claim 1 is known from D1 (see paragraph 2.1). A person skilled in the art would consider use of this process for the purpose of graphic representation in the production process according to claim 19 without thereby being inventive.</p> <p>A trackball is used to move the dental prosthesis on the monitor (see column 7, lines 4-6). Although D3 does not expressly state that the object can be moved on the monitor, this is implicit in the description and figure 13C. An operator can always ensure that the object is moved with only one degree of freedom or two degrees of freedom: at least, with fewer than five degrees of freedom.</p> <p>Consequently, the subject matter of claim 19 does not involve an inventive step.</p> <p>2.3 Claims 20-23 do not appear to contain any features which, in combination with the features of any claim to which they refer back, meet the PCT requirements for inventive step. The reasons are:</p>

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

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Box No. V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;  
citations and explanations supporting such statement

these features are known from D1 and D3.